

WHAT IS CLAIMED IS:

1. An image forming system having an image information generation apparatus for generating image information, and an image forming apparatus capable of forming images on both sides of a printing medium on the basis of the image information generated by the image information generation apparatus,
the image information generation apparatus comprising:
 - 10 image information generation means for generating image information;
storage means for storing the generated image information to allow identifying whether the image information is image information to be printed on a first surface or a second surface of the printing medium;
 - 15 reception means for receiving a predetermined signal from the image forming apparatus;
 - selection means for selecting one of the image information to be printed on the first surface of the medium and the image information to be printed on the second surface on the basis of the predetermined signal received by said reception means; and
 - 20 transmission means for reading out the image information selected by said selection means from said storage means and transmitting the information to the

image forming apparatus, and

the image forming apparatus comprising:

transmission means for transmitting the predetermined signal; and

5 image forming means for forming an image on the first surface or the second surface of the medium on the basis of the image information transmitted from the image information generation apparatus.

2. The system according to claim 1, wherein said

10 image information generation means generates the image information on the basis of PDL data sent from a host computer.

3. The system according to claim 1, wherein the image forming apparatus comprises transmission request means for requesting transmission of the image information of the first surface or the second surface.

15 4. The system according to claim 1, wherein the image information generation apparatus comprises page information transmission means capable of transmitting page information related to image information of a plurality of pages to the image forming apparatus in advance.

20 25 5. The system according to claim 4, wherein the page information includes pieces of information including the number of pages, a paper feed position, and a paper discharge position.

6. The system according to claim 1, wherein said image forming means can form a full-color image.
7. The system according to claim 5, wherein said image forming means selects the paper feed position and
5 discharge position in accordance with the page information.
8. The system according to claim 1, wherein the image forming apparatus further comprises determination means for determining whether the image
10 is to be printed on the first surface or the second surface of the printing medium, and said predetermined signal transmission means transmits the predetermined signal representing a determination result of said determination means.
- 15 9. The system according to claim 1, wherein said image information generation means generates the image information by reading an original.
10. The system according to claim 8, wherein said determination means identifies on the basis of a convey
20 state of the printing medium whether the image is to be printed on the first surface or the second surface of the printing medium.
11. An image information generation apparatus for generating image information to be transmitted to an
25 image forming apparatus capable of forming images on both sides of a printing medium, comprising:

image generation means for generating image information;

storage means for storing the generated image information to allow identifying whether the image

5 information is image information to be printed on a first surface or a second surface of the printing medium;

reception means for receiving a predetermined signal from the image forming apparatus;

10 selection means for selecting one of the image information to be printed on the first surface of the medium and the image information to be printed on the second surface on the basis of the predetermined signal received by said reception means; and

15 transmission means for reading out the image information selected by said selection means from said storage means and transmitting the information to the image forming apparatus.

12. The apparatus according to claim 11, wherein said
20 image information generation means comprises at least one of means for generating the image information on the basis of PDL data sent from a host computer and means for generating the image information by reading an original.

25 13. The apparatus according to claim 11, further comprising page information transmission means capable

of transmitting page information related to image information of a plurality of pages to the image forming apparatus in advance.

14. The apparatus according to claim 13, wherein the
5 page information includes pieces of information including the number of pages, a paper feed position, and a paper discharge position.

15. The apparatus according to claim 13, wherein said apparatus sends the image information as a pair to be
10 printed on the first and the second surface of the medium,

after said image information are made ready.

16. An image forming apparatus capable of forming images on both sides of a printing medium on the basis
15 of image information generated by an image information generation apparatus, comprising:

determination means for identifying whether the image is to be printed on a first surface or a second surface of the printing medium;

20 transmission means for transmitting a predetermined signal representing a determination result of said determination means; and

image forming means for forming an image on the first surface or the second surface of the printing
25 medium on the basis of the image information transmitted from the image information generation

apparatus.

17. The apparatus according to claim 16, further comprising transmission request means for requesting transmission of the image information of the first 5 surface or the second surface.

18. The apparatus according to claim 16, wherein said image forming means can form a full-color image.

19. The apparatus according to claim 16, wherein said image forming means comprises page information 10 reception means capable of receiving page information related to image information of a plurality of pages from the image information generation apparatus in advance, and selects a paper feed position and discharge position in accordance with the page 15 information.

20. The apparatus according to claim 16, wherein said apparatus further comprises determination means for determining whether the image is to be printed on the first surface or the second surface of 20 the printing medium, and

 said predetermined signal transmission means transmits the predetermined signal representing a determination result of said determination means.

21. An image forming method having an image 25 information generation module for generating image information, and an image forming module capable of

forming images on both sides of a printing medium on the basis of the image information generated by the image information generation module,

the image information generation module

5 comprising:

an image information generation step of generating image information;

a storage step of storing the generated image information to allow identifying whether the image
10 information is image information to be printed on a first surface or a second surface of the printing medium;

a reception step of receiving a predetermined signal from the image forming module;

15 a selection step of selecting one of the image information to be printed on the first surface of the medium and the image information to be printed on the second surface on the basis of the predetermined signal received by said reception step; and

20 a transmission step of reading out the image information selected by said selection step from said storage step and transmitting the information to the image forming module, and

the image forming module comprising steps of:

25 a transmission step of transmitting the predetermined signal; and

an image forming step of forming an image on the first surface or the second surface of the medium on the basis of the image information transmitted from the image information generation module.

- 5 22. The method according to claim 21, wherein said image information generation step generates the image information on the basis of PDL data sent from a host computer.
- 10 23. The method according to claim 21, wherein the image forming module comprises a transmission request step of requesting transmission of the image information of the first surface or the second surface.
- 15 24. The method according to claim 21, wherein the image information generation module comprises a page information transmission step capable of transmitting page information related to image information of a plurality of pages to the image forming module in advance.
- 20 25. The method according to claim 24, wherein the page information includes pieces of information including the number of pages, a paper feed position, and a paper discharge position.
- 25 26. The method according to claim 21, wherein said image forming step can form a full-color image.
27. The method according to claim 25, wherein said image forming step selects the paper feed position and

discharge position in accordance with the page information.

28. The method according to claim 21, wherein the image forming module further comprises a 5 determination step of determining whether the image is to be printed on the first surface or the second surface of the printing medium, and said predetermined signal transmission step transmits the predetermined signal representing a 10 determination result of said determination step.
29. The method according to claim 21, wherein said image information generation step generates the image information by reading an original.
30. The method according to claim 28, wherein said 15 determination step identifies on the basis of a convey state of the printing medium whether the image is to be printed on the first surface or the second surface of the printing medium.
31. An image information generation method for 20 generating image information to be transmitted to an image forming module capable of forming images on both sides of a printing medium, comprising:
- an image generation step of generating image information;
- 25 a storage step of storing the generated image information to allow identifying whether the image

information is image information to be printed on a first surface or a second surface of the printing medium;

- a reception step of receiving a predetermined signal from the image forming module;
- a selection step of selecting one of the image information to be printed on the first surface of the medium and the image information to be printed on the second surface on the basis of the predetermined signal received by said reception step; and
- a transmission step of reading out the image information selected by said selection step from said storage step and transmitting the information to the image forming module.
- 15 32. The method according to claim 31, wherein said image information generation step generates the image information on the basis of PDL data sent from a host computer.
33. The method according to claim 31, further comprising page information transmission step capable of transmitting page information related to image information of a plurality of pages to the image forming module in advance.
34. The method according to claim 33, wherein the page information includes pieces of information including the number of pages, a paper feed position,

and a paper discharge position.

35. The method according to claim 31, wherein said image information generation step generates the image information by reading an original.

5 36. An image forming method capable of forming images on both sides of a printing medium on the basis of image information generated by an image information generation module, comprising:

10 a determination step of identifying whether the image is to be printed on a first surface or a second surface of the printing medium;

15 a transmission step of transmitting a predetermined signal representing a determination result of said determination step; and

an image forming step of forming an image on the first surface or the second surface of the printing medium on the basis of the image information transmitted from the image information generation module.

20 37. The method according to claim 36, further comprising a transmission request step of requesting transmission of the image information of the first surface or the second surface.

38. The method according to claim 36, wherein said 25 image forming step can form a full-color image.

39. The method according to claim 36, wherein said

image forming step comprises a page information reception step capable of receiving page information related to image information of a plurality of pages from the image information generation module in advance,

- 5 and selects a paper feed position and discharge position in accordance with the page information.

40. The method according to claim 36, wherein

- said method further comprises a determination step of determining whether the image is to be printed
10 on the first surface or the second surface of the printing medium, and

said predetermined signal transmission step transmits the predetermined signal representing a determination result of said determination step.

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